

WHAT IS CLAIMED IS:

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1. A digital camera for acquiring image data by taking
a subject image, comprising:

imaging device which takes a subject image, and
5 a piezoelectric element which displaces said imaging
device,

wherein energy accumulating unit for supplying an
electric power to other unit is used as an electric power
supply source for said piezoelectric element.

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2. The digital camera according to claim 1, wherein said
energy accumulating unit is composed of a main capacitor for
stroboscope emission provided inside or outside, and said
piezoelectric element is charged by the energy accumulated
15 in this main capacitor.

3. A digital camera capable of taking an image by shifting
pixels, comprising:

imaging device which takes a subject image,
20 a piezoelectric element which displaces said imaging
device,

switching unit which charges said piezoelectric
element by the energy accumulated in a main capacitor for
stroboscope emission provided inside or outside, or
25 discharges said piezoelectric element, and

control unit for controls said switching unit for controlling the charging and discharging sequence of said piezoelectric element,

wherein said control unit controls to take a first image by charging said piezoelectric element in a state of displacing said imaging device, and take a second image by discharging said piezoelectric element in a state before displacement of said imaging device.

4. A digital camera capable of taking an image by shifting pixels, comprising:

imaging device which takes a subject image,

a piezoelectric element which displaces said imaging device,

switching unit which charges said piezoelectric element by the energy accumulated in a main capacitor for stroboscope emission provided inside or outside, or discharges said piezoelectric element, and

control unit which controls said switching unit for controlling the charging and discharging sequence of said piezoelectric element,

wherein said switching unit includes a charge adjusting circuit for stopping the charging operation when the charged voltage in said piezoelectric element becomes a specified value to hold this charged voltage, and

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restarting charging operation when the charged voltage in
said piezoelectric element becomes lower than a specified
value, and said control unit controls to take a first image
by charging said piezoelectric element in a state of
5 displacing said imaging device, and take a second image by
discharging said piezoelectric element in a state before
displacement of said imaging device.

5. A digital camera capable of taking an image by shifting
10 pixels, comprising:

imaging device which takes a subject image,

a piezoelectric element which displaces said imaging
device,

switching unit which charges said piezoelectric
15 element by the energy accumulated in a main capacitor for
stroboscope emission provided inside or outside, or
discharges said piezoelectric element, and

control unit which controls said switching unit for
controlling the charging and discharging sequence of said
20 piezoelectric element,

wherein said switching unit includes a charging switch
circuit for turning on or off charging of said piezoelectric
element, a discharging switch circuit for turning on or off
discharging of said piezoelectric element, a detecting
25 circuit for detecting the charged voltage in said

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piezoelectric element, and comparing circuit for comparing
the charged voltage in said piezoelectric element detected
by said detecting circuit and a reference voltage, said
charging switch circuit turns on or off charging of said
5 piezoelectric element on the basis of the result of
comparison by said comparing circuit, and said control unit
controls to take a first image by charging said piezoelectric
element in a state of displacing said imaging device, and
take a second image by discharging said piezoelectric
10 element in a state before displacement of said imaging
device.

6. A digital camera capable of taking an image by shifting
pixels, comprising:

15 imaging device which takes a subject image,
a piezoelectric element which displaces said imaging
device,

switching unit which charges said piezoelectric
element by the energy accumulated in a main capacitor for
20 stroboscope emission provided inside or outside, or
discharges said piezoelectric element, and

control unit which controls said switching unit for
controlling the charging and discharging sequence of said
piezoelectric element,

25 wherein said control unit controls so as to stop the

charging operation when said piezoelectric element reaches a specified voltage, and to take a first image by charging said piezoelectric element in a state of displacing said imaging device, and take a second image by discharging said piezoelectric element in a state before displacement of said imaging device.

7. A digital camera capable of taking an image by shifting pixels, comprising:

10 imaging device which takes a subject image,
a piezoelectric element which displaces said imaging device,

switching unit which charges said piezoelectric element by the energy accumulated in a main capacitor for
15 stroboscope emission provided inside or outside, or discharges said piezoelectric element, and

control unit which controls said switching unit for controlling the charging and discharging sequence of said piezoelectric element, and also controlling to stop the
20 charging operation when said piezoelectric element reaches a specified voltage,

wherein said switching unit includes a charging switch circuit for turning on or off charging of said piezoelectric element, a discharging switch circuit for turning on or off
25 discharging of said piezoelectric element, and a detecting

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circuit for detecting the charged voltage in said piezoelectric element, and said control unit controls to turn on or off said charging switch circuit on the basis of the detected voltage of the detecting circuit, and to take
5 a first image by charging said piezoelectric element in a state of displacing said imaging device, and take a second image by discharging said piezoelectric element in a state before displacement of said imaging device.

10 8. A digital camera capable of taking an image by shifting pixels, comprising:

imaging device which takes a subject image,

a piezoelectric element which displaces said imaging device,

15 switching unit which charges said piezoelectric element by the energy accumulated in a main capacitor for stroboscope emission provided inside or outside, or discharges said piezoelectric element, and

control unit which controls said switching unit for
20 controlling the charging and discharging sequence of said piezoelectric element,

wherein said control unit controls to take a first image in a state not displacing said imaging device, and take a second image by charging said piezoelectric element in a
25 state of displacing said imaging device.

9. A digital camera capable of taking an image by shifting pixels, comprising:

imaging device which takes a subject image,

5 a piezoelectric element which displaces said imaging device,

switching unit which charges said piezoelectric element by the energy accumulated in a main capacitor for stroboscope emission provided inside or outside, or discharges said piezoelectric element, and

10 control unit which controls said switching unit for controlling the charging and discharging sequence of said piezoelectric element,

wherein said switching unit includes a charge adjusting circuit for stopping the charging operation when
15 the charged voltage in said piezoelectric element becomes a specified value to hold this charged voltage, and restarting charging operation when the charged voltage in said piezoelectric element becomes lower than a specified value, and said control unit controls to take a first image
20 in a state not displacing said imaging device, and take a second image by charging said piezoelectric element in a state of displacing said imaging device.

10. A digital camera capable of taking an image by shifting pixels, comprising:

imaging device which takes a subject image,

a piezoelectric element which displaces said imaging
5 device,

switching unit which charges said piezoelectric
element by the energy accumulated in a main capacitor for
stroboscope emission provided inside or outside, or
discharging said piezoelectric element, and

10 control unit which controls said switching unit for
controlling the charging and discharging sequence of said
piezoelectric element,

wherein said switching unit includes a charging switch
circuit for turning on or off charging of said piezoelectric
15 element, a discharging switch circuit for turning on or off
discharging of said piezoelectric element, a detecting
circuit for detecting the charged voltage in said
piezoelectric element, and comparing circuit for comparing
the charged voltage in said piezoelectric element detected
20 by said detecting circuit and a reference voltage, said
charging switch circuit turns on or off charging of said
piezoelectric element on the basis of the result of
comparison by said comparing circuit, and said control unit
controls to take a first image in a state not displacing said
25 imaging device, and take a second image by charging said

piezoelectric element in a state of displacing said imaging device.

11. A digital camera capable of taking an image by shifting pixels, comprising:

imaging device which takes a subject image,

a piezoelectric element which displaces said imaging device,

switching unit which charges said piezoelectric element by the energy accumulated in a main capacitor for stroboscope emission provided inside or outside, or discharges said piezoelectric element, and

control unit which controls said switching unit for controlling the charging and discharging sequence of said piezoelectric element,

wherein said control unit controls so as to stop the charging operation when said piezoelectric element reaches a specified voltage, and to take a first image in a state not displacing said imaging device, and take a second image by charging said piezoelectric element in a state of displacing said imaging device.

12. A digital camera capable of taking an image by shifting pixels, comprising:

imaging device which takes a subject image,

a piezoelectric element which displaces said imaging device,

switching unit which charges said piezoelectric element by the energy accumulated in a main capacitor for
5 stroboscope emission provided inside or outside, or discharges said piezoelectric element, and

control unit which controls said switching unit for controlling the charging and discharging sequence of said piezoelectric element, and also controlling to stop the
10 charging operation when said piezoelectric element reaches a specified voltage,

wherein said switching unit includes a charging switch circuit for turning on or off charging of said piezoelectric element, a discharging switch circuit for turning on or off
15 discharging of said piezoelectric element, and a detecting circuit for detecting the charged voltage in said piezoelectric element, and said control unit controls to turn on or off said charging switch circuit on the basis of the detected voltage of the detecting circuit, and to take
20 a first image in a state not displacing said imaging device, and take a second image by charging said piezoelectric element in a state of displacing said imaging device.